WORLD CLASS TRAINING FOR
THE WORLD'S BEST ARMY

Protect the
Force
Through Risk
Management

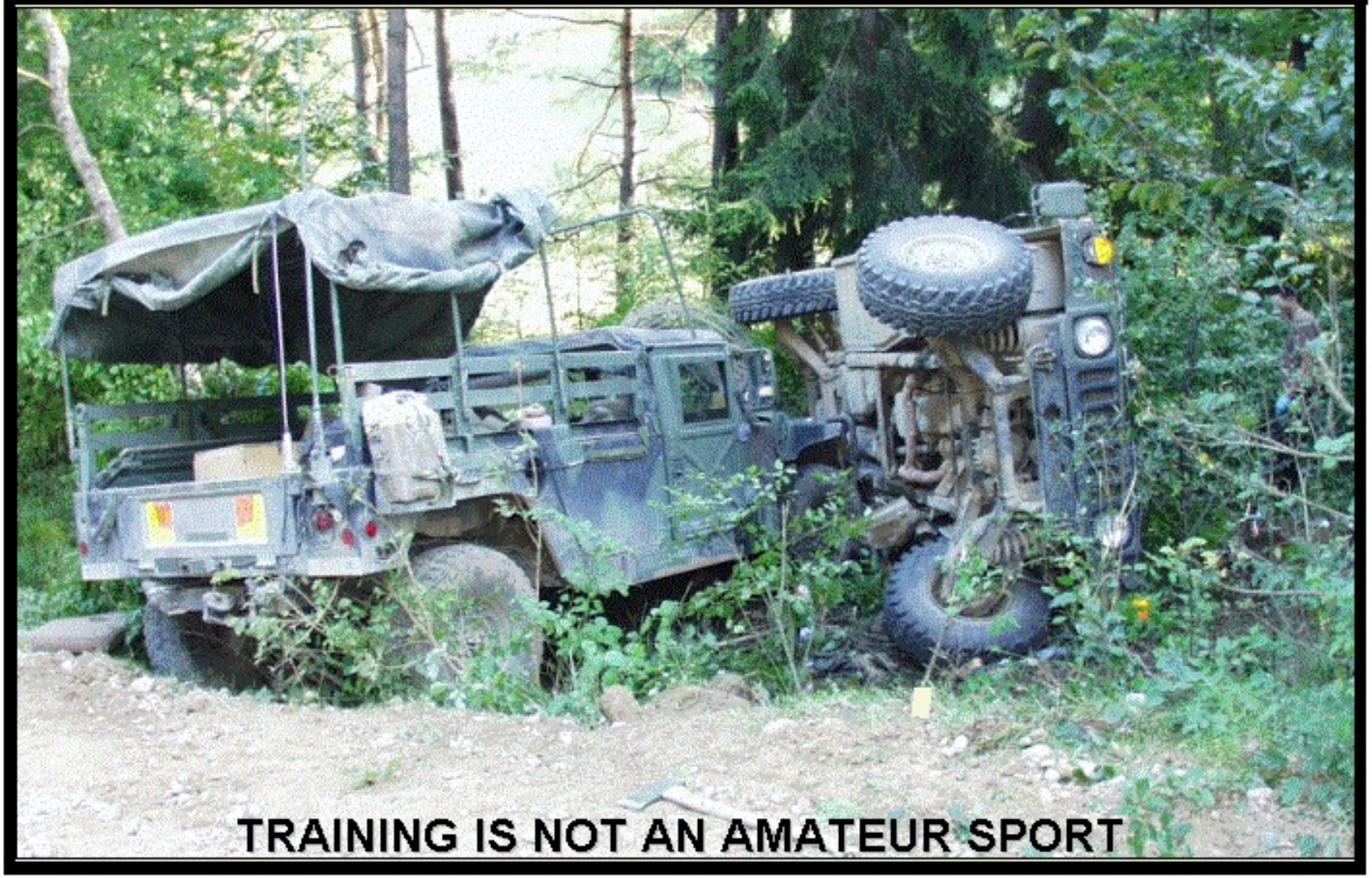
CMTC

SAFETY BRIEFING

AGENDA

1. CMTC FATAL ACCIDENTS
2. ROTATIONAL UNIT TRENDS
3. INJURY CAUSATION FACTORS
4. VEHICLE ACCIDENT CAUSATION
5. VEHICLE MISHAP TRENDS
6. INJURY CAUSATION FACTORS 2BDE 1ID
7. VEHICLE ACCIDENT CAUSATION 2 BDE 1ID
8. AVOIDING MISHAPS
9. TRENDS
10. DISCIPLINE AND PROCEDURES
11. AVIATION MISHAP PREVENTION
12. RISK MANAGMENT

ACCIDENT TRENDS



TRAINING IS NOT AN AMATEUR SPORT

CMTC FATAL ACCIDENTS
Apr 93 – Sep 04

HEMTT rolled into creek

HMMWV towing HMMWV

M1 roll over

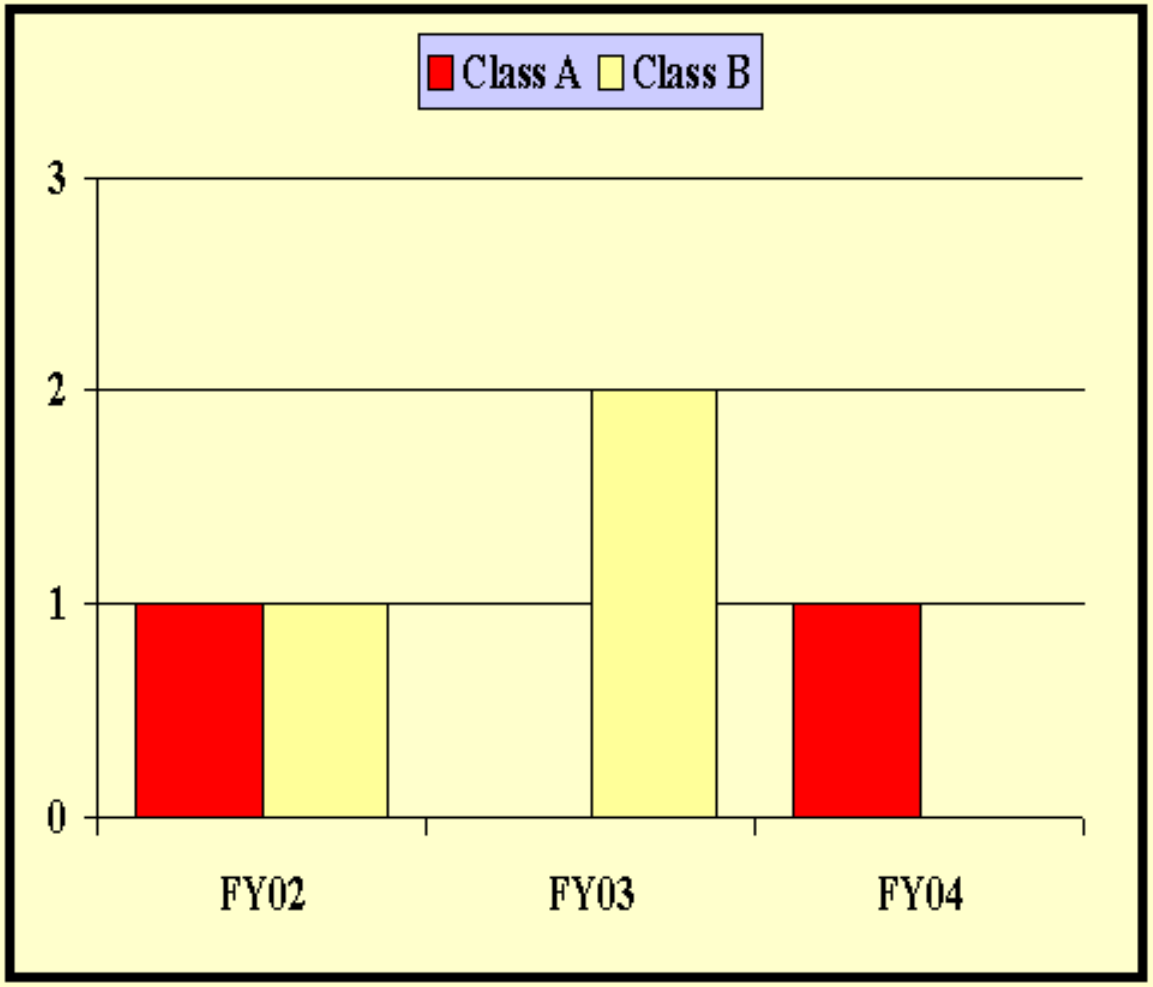
5ton truck hit Main Gun of a MBT

HMMWV run over by MBT

M113 roll over

SM run over by HEMTT

Rotational Trends
Class A & B Ground Accidents



Class A - Fatality, permanent disability, ≥$1,000,000 property damage

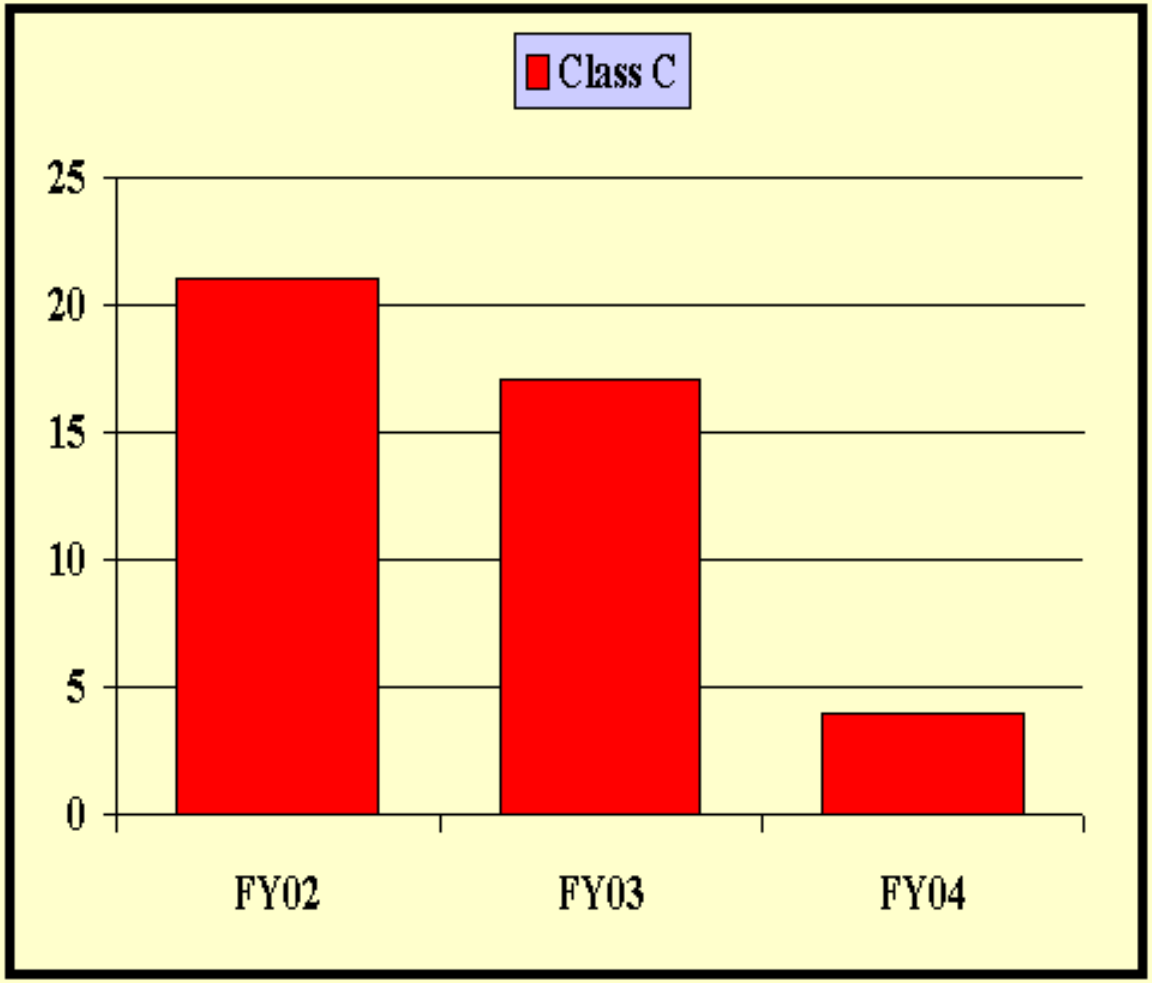
Class B - ≥$200,000 but <$1,000,000; an injury results in permanent partial disability; ≥3 personnel are inpatient hospitalized as as the result of a single occurrence.

Rotational Trends
Class A & B FY 02 to date

1 = Class A TC fatality – M113 Rollover
1 = Class A Driver fatality – HMMWV towing HMMWV

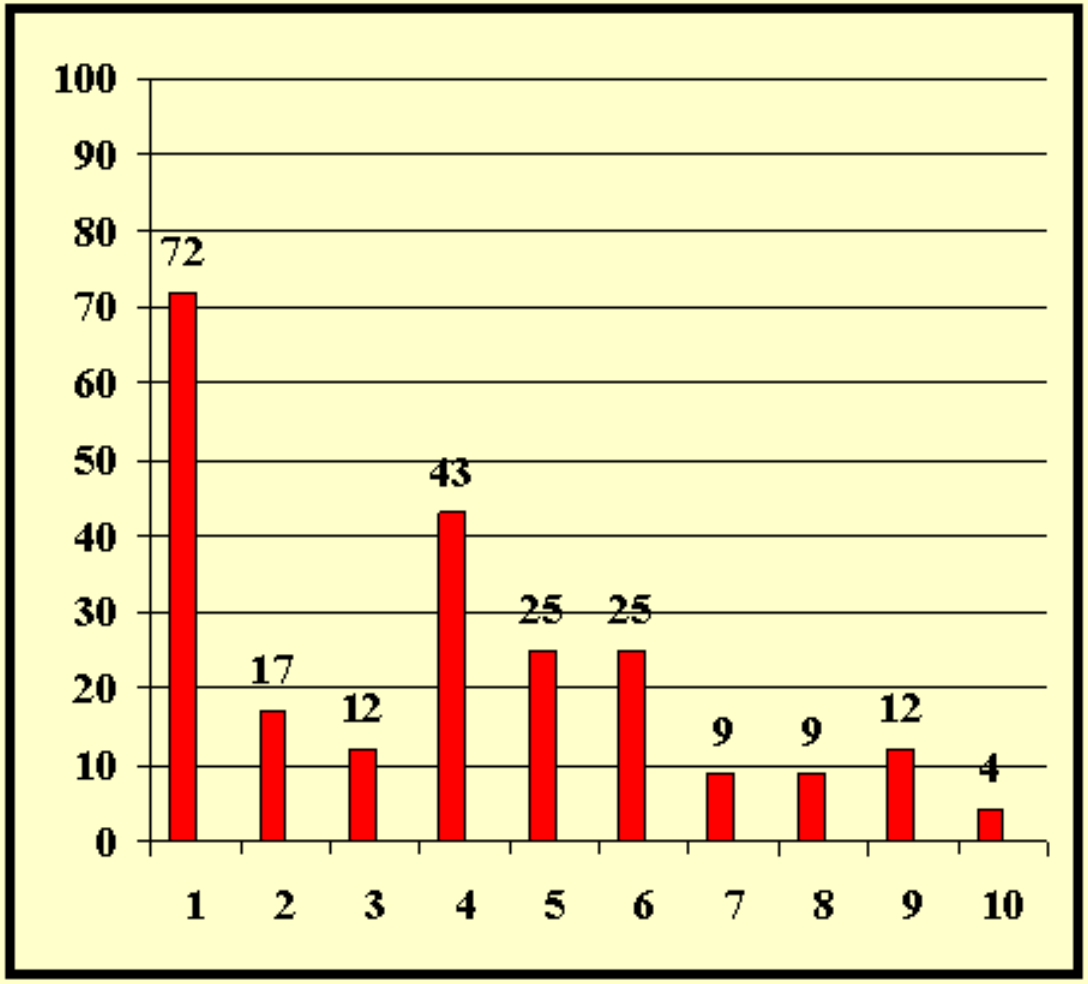
1 = Class B Finger amputation
1 = Class B Bradley roll-over 7 personnel injured

Rotational Trends
Class C Ground Accidents



Class C - Lost workday injury or ≥$20,000 but <$200,000 property damage

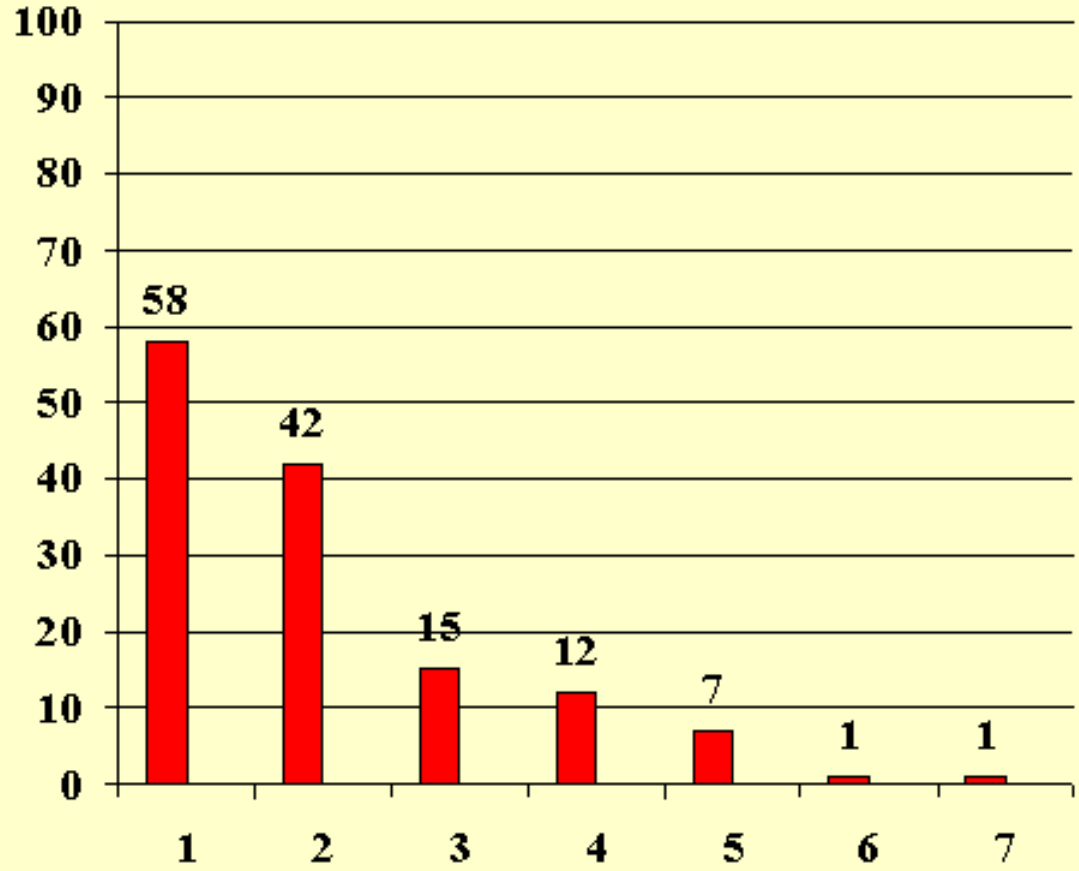
INJURY CAUSATION FACTORS



FY 02 to Date
ALL PERSONNEL INJURY ACCIDENTS

1-SLIPS, TRIPS, FALLS
2-CUT/PUNCTURED BY
3- PUSH, PULL, LIFT
4- STRUCK BY/AGAINST
5- HEAT, COLD, & BURNS
6-PINCHED IN/BETWEEN
7-EYE INJURIES
8-FLORA/FAUNA/INSECT
9-EXPLOSIVES/HAZMAT
10-PYRO/AMMO

VEHICLE ACCIDENT CAUSATION



FY 02 to Date ALL VEHICLE ACCIDENTS REPORTED

1-COLLISIONS
2-ROLLOVERS
3-FIRES
4-JOSTLED
5-TOWING
6-EQUIPMENT FALLING OFF VEHICLES
7-RUN-OVERS

Vehicle Mishap Trends
FY-02 To Present

TRENDS	FY 02	03	04
COLLISIONS =	27	27	4
ROLLOVERS =	19	22	1
FIRES =	4	9	2
JOSTLED =	8	2	2
TOWING =	2	3	2
EQUIPMENT FALLING OFF VEHICLES =	1	0	0
RUNOVERS = (Other vehicles, equipment, & personnel)	1	0	0

CAUSATION FACTORS

- Limited Visibility
- Lack of Preventive Maintenance
- Lack of Situational Awareness
- Cornering at High Speeds
- Cornering Fast With High Loads
- Failure to Wear Seat Belts
- Failure to Secure Loads
- Driving Over Drop Offs
- Steep Inclines
- Improper Spacing Distance in Convoys
- Driving Too Fast For Conditions
- Low Illumination & Night Vision Goggles
- Failure to Use Ground Guides
- Failure to use/properly use chock blocks

AVOIDING MISHAPS

COUNTERMEASURES

- **Tactical vehicle fires:** Inspect portable fire extinguishers and ensure personnel know how to use them. Use more than one extinguisher at the same time. The Fire Department is a long distance away…..
- **Collisions:** Slow down during "Limited Visibility" including limited visibility caused by vegetation, terrain and NVG Operations" and use ground guides. Obey speed limits per ROE.
- **Slips, trips, falls and back strains:** Ensure supervisors enforce "3- Points of Contact" and the two man lift rule for heavy objects.

AVOIDING MISHAPS

COUNTERMEASURES

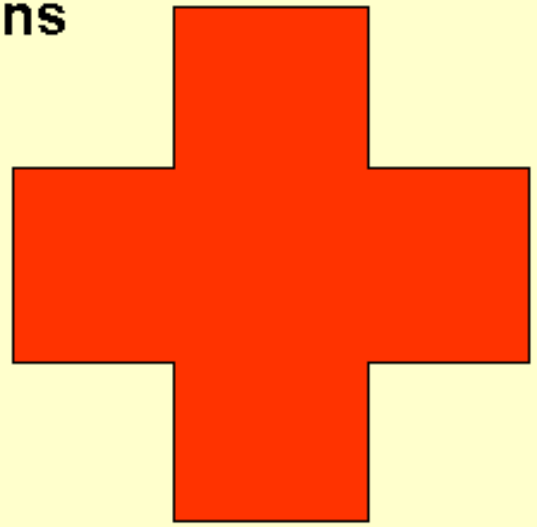
- **Rollovers:** Slow down and use chains on mud, ice and snow. On secondary trails, go through water/mud holes rather than around them.

- **Runaway vehicles:** Runaway vehicle mishaps occur every rotation. Teach soldiers when and where to use chock blocks. Enforce standards!

- **Towing accidents:** Train operators to standard, leaders continue training by passing on proven trade techniques. Entrust operators with critical tasks only after they have demonstrated needed skills.

RECENT TRENDS OBSERVED

- **Failure to use Personal Protective Equipment (PPE)**
  - Particles in Eyes
  - Chemical burns (JP8) of eyes, hands & legs
  - Head injuries while riding in armored vehicles
- **Ground guiding – improper or not used**
- **Being pushed out of control by a towed vehicle**
- **Excessive Speed under all conditions**
- **Vehicle Fires due to poor PMCS**
- **Explosive & Pyrotechnic mishaps**
- **Cold weather injuries**
- **Insect Bites**



SUPERVISORS ARE THE KEY

- Assess Hazards
- Develop Controls & Make Risk Decision
- Implement Controls
- Supervise & Evaluate
- Identify Hazards

FIRST LINE SUPERVISORS ARE THE KEY FOR A SAFE AND SUCCESSFUL ROTATION

DISCIPLINE AND PROCEDURES

UTILIZE TRAINING GUIDES, FIELD MANUALS, AND TMs

PMCS Continues during operation!

Operator "rear-ended" the truck he was following

PINCH POINTS

Inspect and ensure hatch pins are in place

Keep Limbs Out of Pinch Points

CONCERTINA WIRE

CONCERTINA WIRE WILL NOT GIVE YOU A SECOND CHANCE! RESPECT IT IN EVERY SITUATION

INSURE YOU EXPECT THE UNEXPECTED

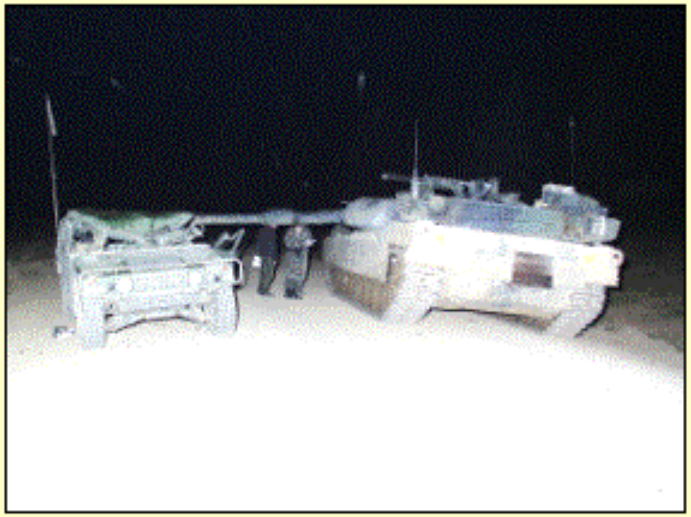
Excessive Speed and Low Visibility Collisions

Both vehicles were operated in a smoke cloud so thick they could not see the road in front of them.

LIMITED VISIBILITY OPERATIONS

SLOW DOWN IN LIMITED VISIBILITY

LIMITED VISIBILITY CONTINUED



Limited Visibility

is never the cause, it is merely an environmental condition – the cause was

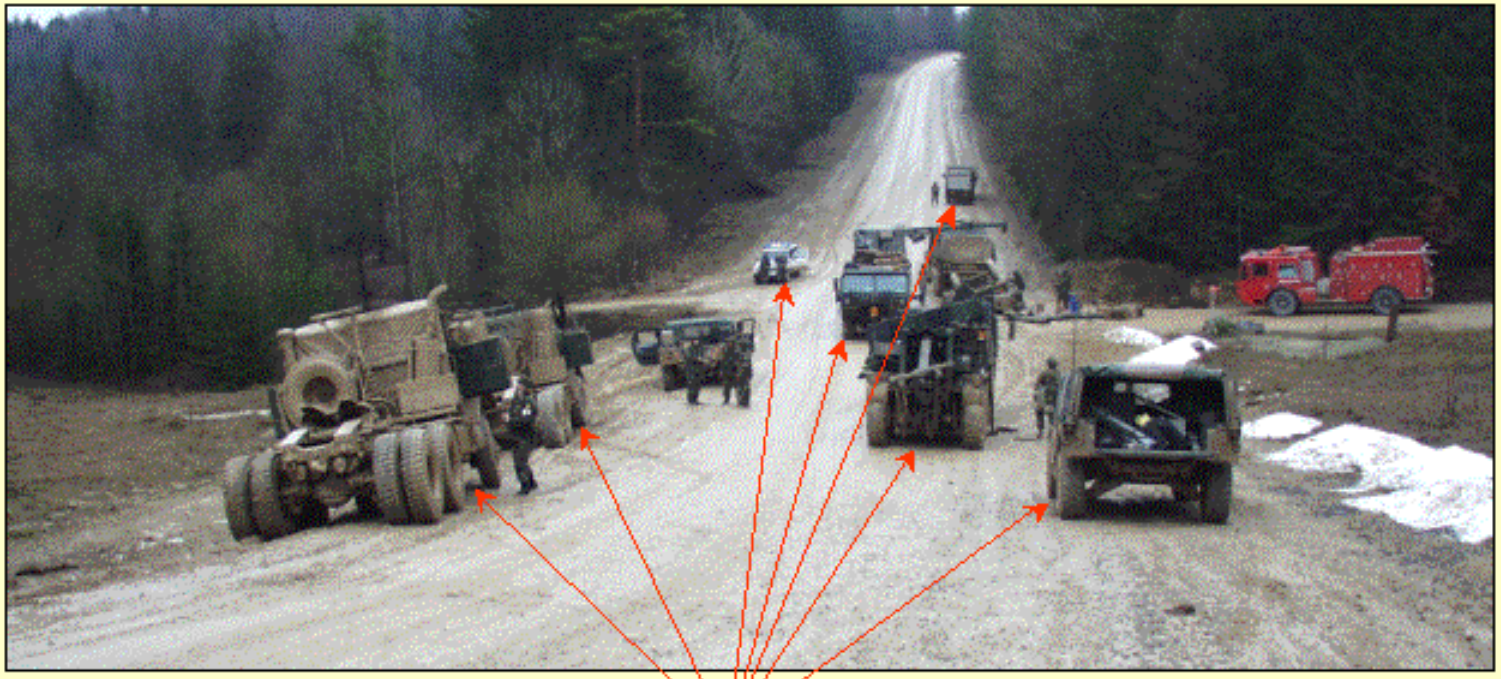
Excessive Speed!

STEEP GRADES

Hazards

"No Adult Supervision"
"Driver Experience"
"Speed"
"Steep Roads"
"Drop-Offs"
"Night Vision"
"Poor Risk Management"

Lesson Learned
Secure & Chock Vehicles



NO CHOCKS BLOCKS AT ACCIDENT SCENE

Don't make a bad situation worse. The belief that we must discard safety in favor of urgency will eventually lead to more damage, injury or death.

CHOCK VEHICLES

RUNAWAY VEHICLES CONTINUE TO BE A PROBLEM AT THE CMTC:

- PARKING ON INCLINES SO STEEP THAT CHOCKING IS INEFFECTIVE
- USING THE WRONG CHOCKS, USING THEM IMPROPERLY
- NOT USING CHOCK BLOCKS AT ALL

Lesson Learned
Slow Down

Slow down, secure load and wear seatbelts

VEHICLE ROLLOVERS

Muddy trails,
too fast
and
driver overconfidence

=

Lesson Learned
Towing Requires Training

Towing vehicles is not a task to be taken lightly. Driving too fast, especially down hill, will quickly lead to the towed vehicle pushing the tower out of control.

REVIEW THE –10 TOWING STANDARDS!

Winter Driving Hazards
Risk Reduction

Negotiating snow covered slopes requires caution and foresight. Allow the vehicle in front of you get to the top or bottom before you commit your vehicle.

Winter Driving Hazards
Risk Reduction

When the tank trails get slippery, tire chains become a requirement.

HEATER SAFETY

AE Pam 385-15 guides us through safe heater operations.
Only trained personnel may operate heaters!

HEATER SAFETY

ONLY USE AUTHORIZED HEATERS

UNVENTED AND PROPANE HEATERS ARE NOT AUTHORIZED

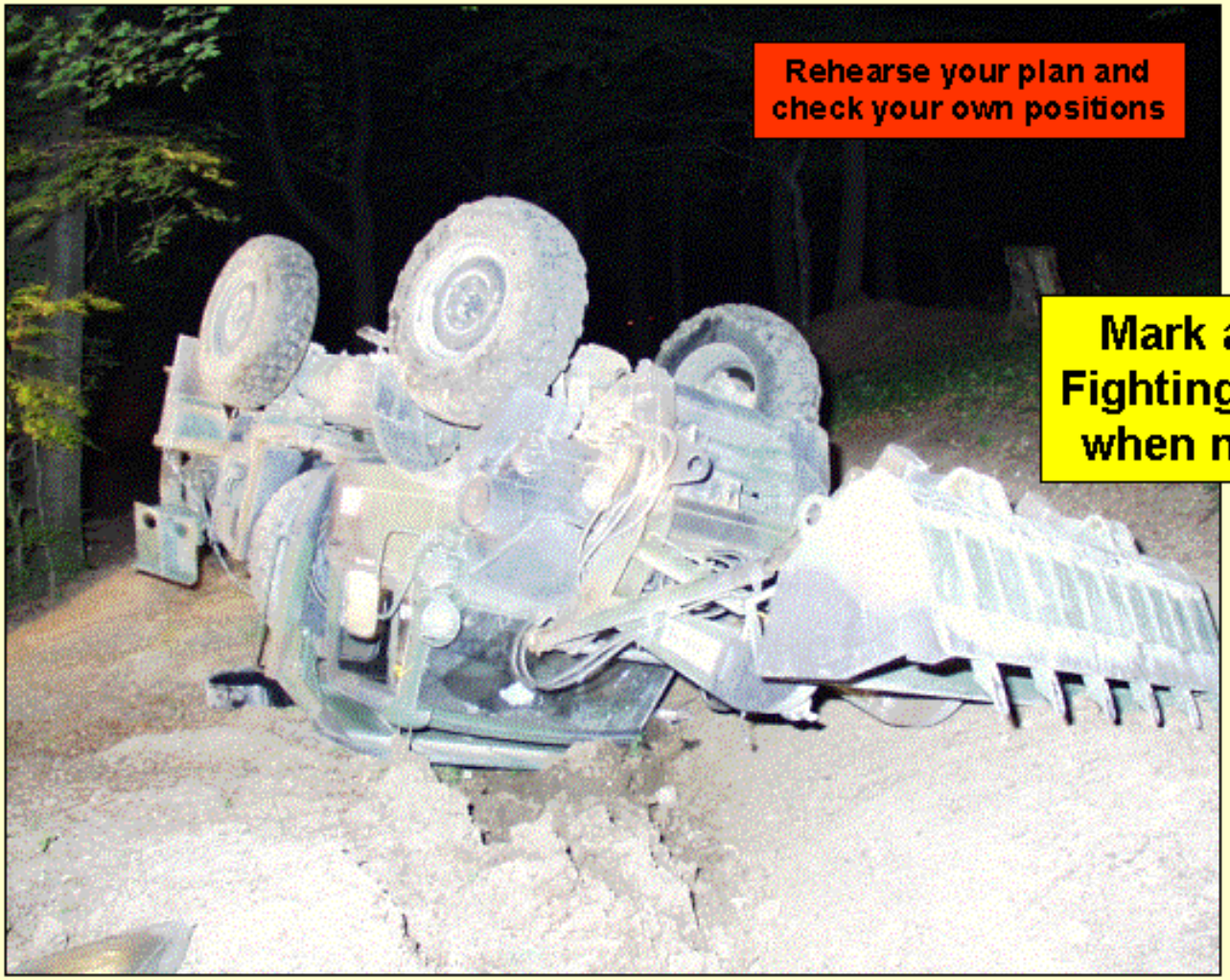
NAMETAG DEFILADE STANDARD

Tag Standards Can Save a Soldier's Life in Case of a Rollover

RIGHT

WRONG

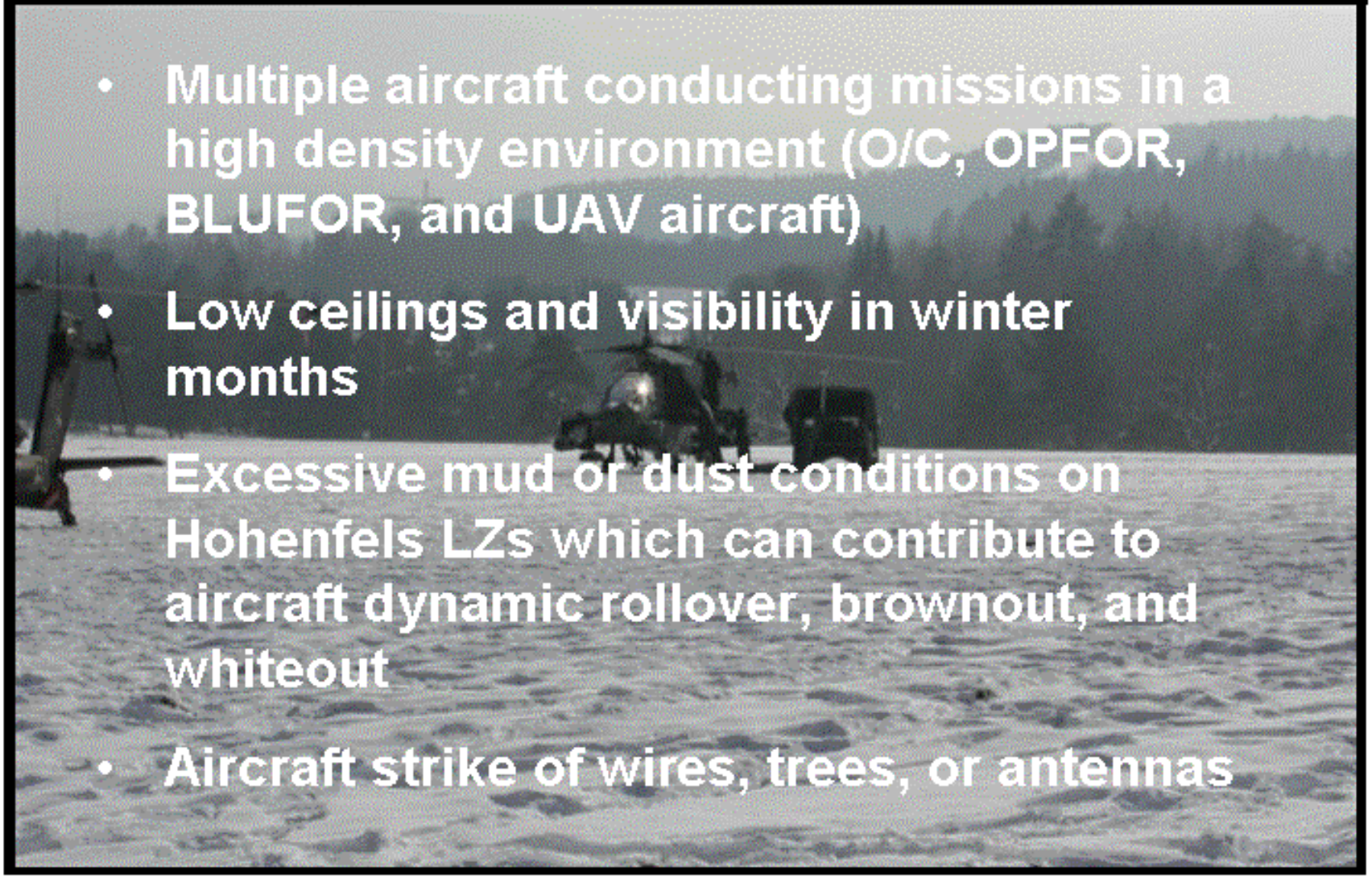
LESSON LEARNED



Mark and fill in Fighting Positions when not in use.

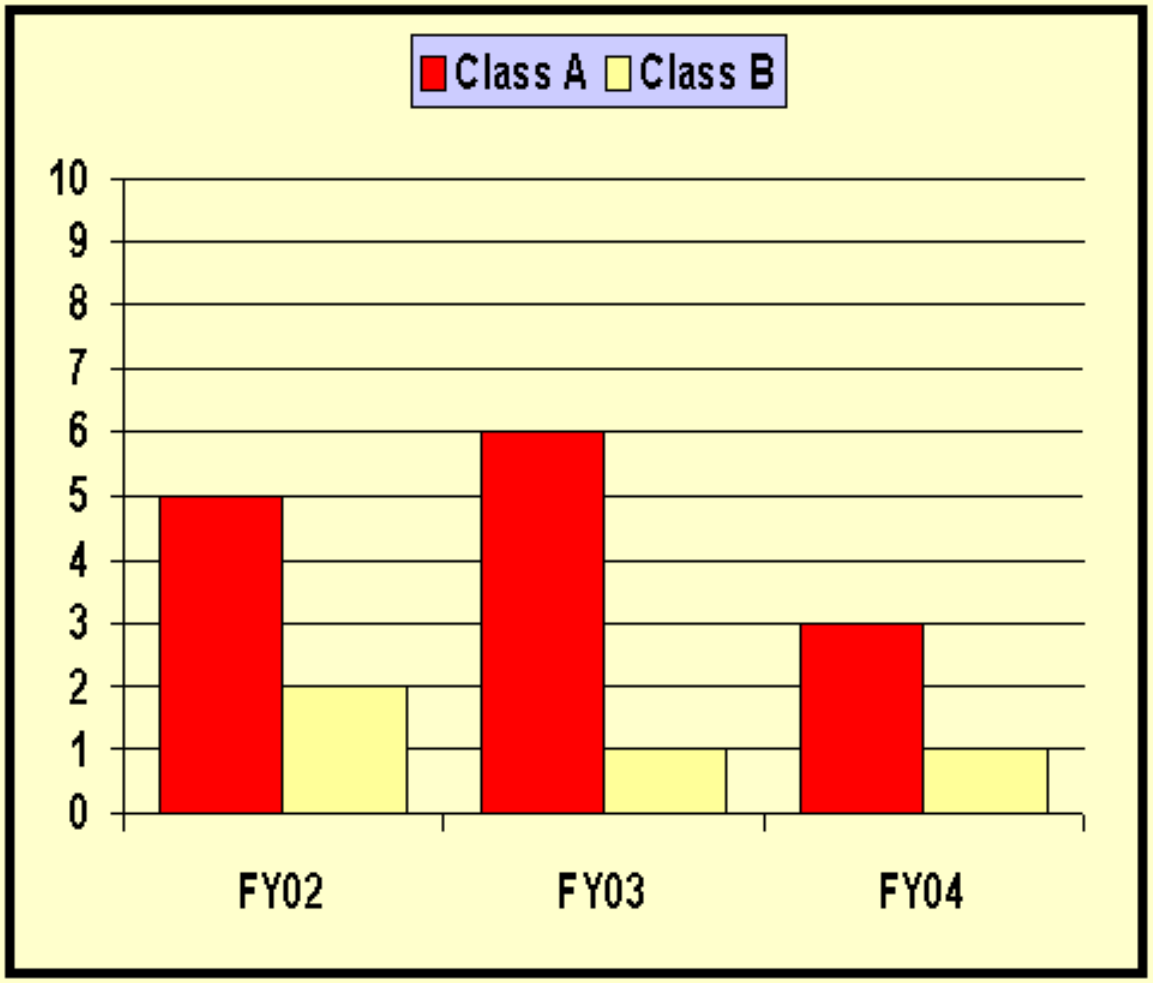
Aviation Mishap Prevention

Aviation Hazards Associated with the CMTC



- Multiple aircraft conducting missions in a high density environment (O/C, OPFOR, BLUFOR, and UAV aircraft)
- Low ceilings and visibility in winter months
- Excessive mud or dust conditions on Hohenfels LZs which can contribute to aircraft dynamic rollover, brownout, and whiteout
- Aircraft strike of wires, trees, or antennas

Class A & B Aviation Accidents (Afghanistan)



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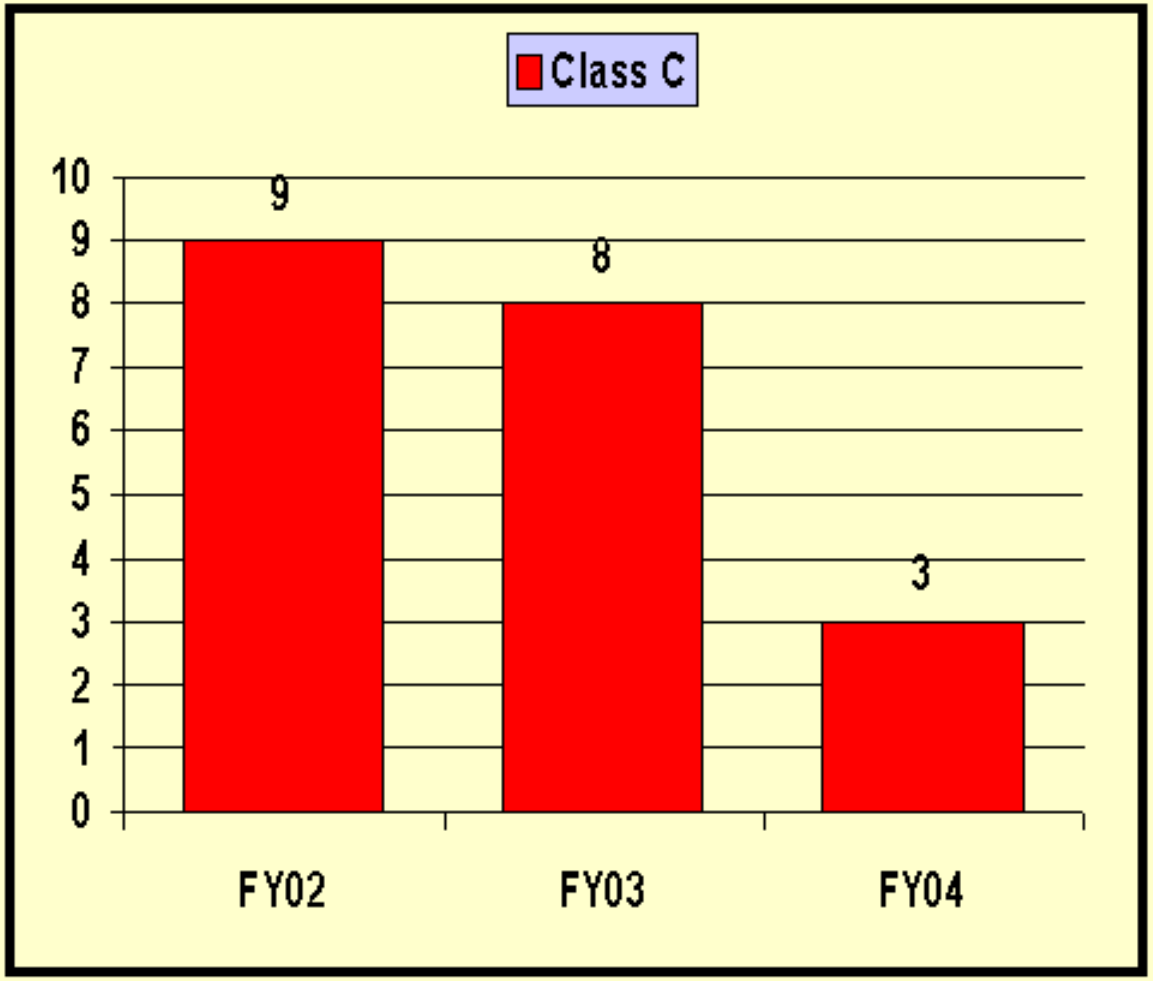
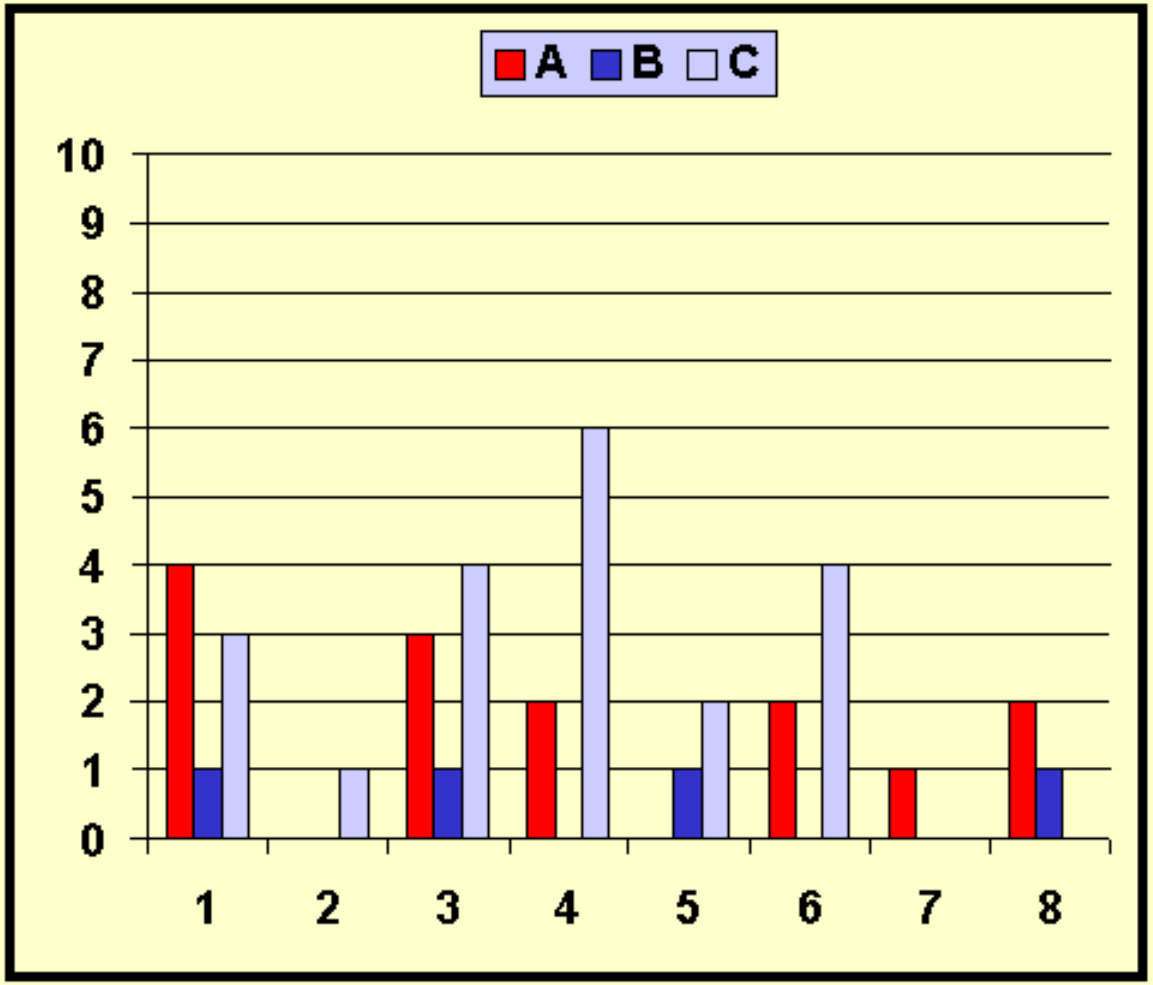
Class C Aviation Accidents (Afghanistan)



Class C - Lost workday injury or ≥$20,000 but <$200,000 property damage

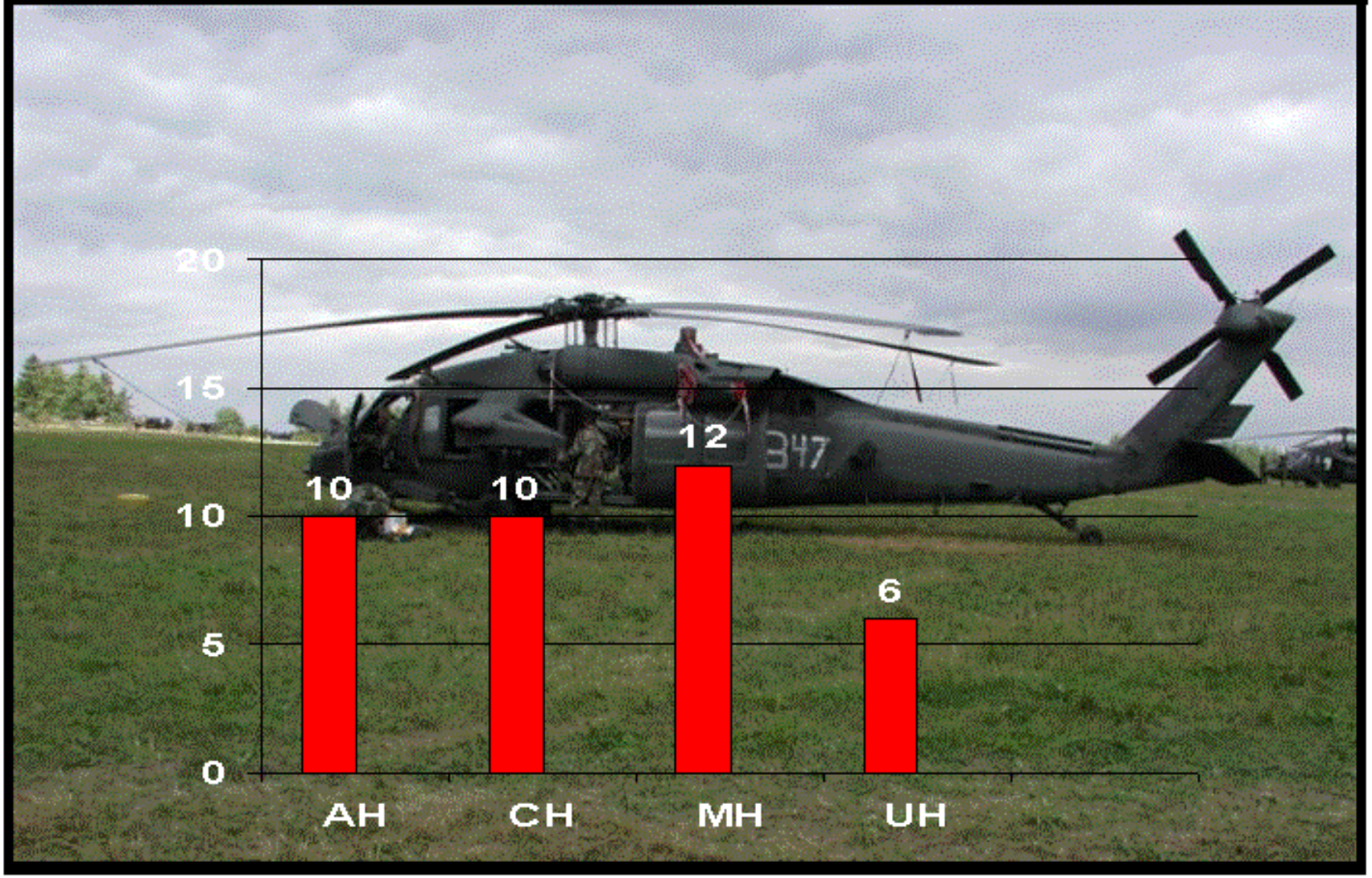
AVIATION ACCIDENT CAUSATION (Afghanistan)



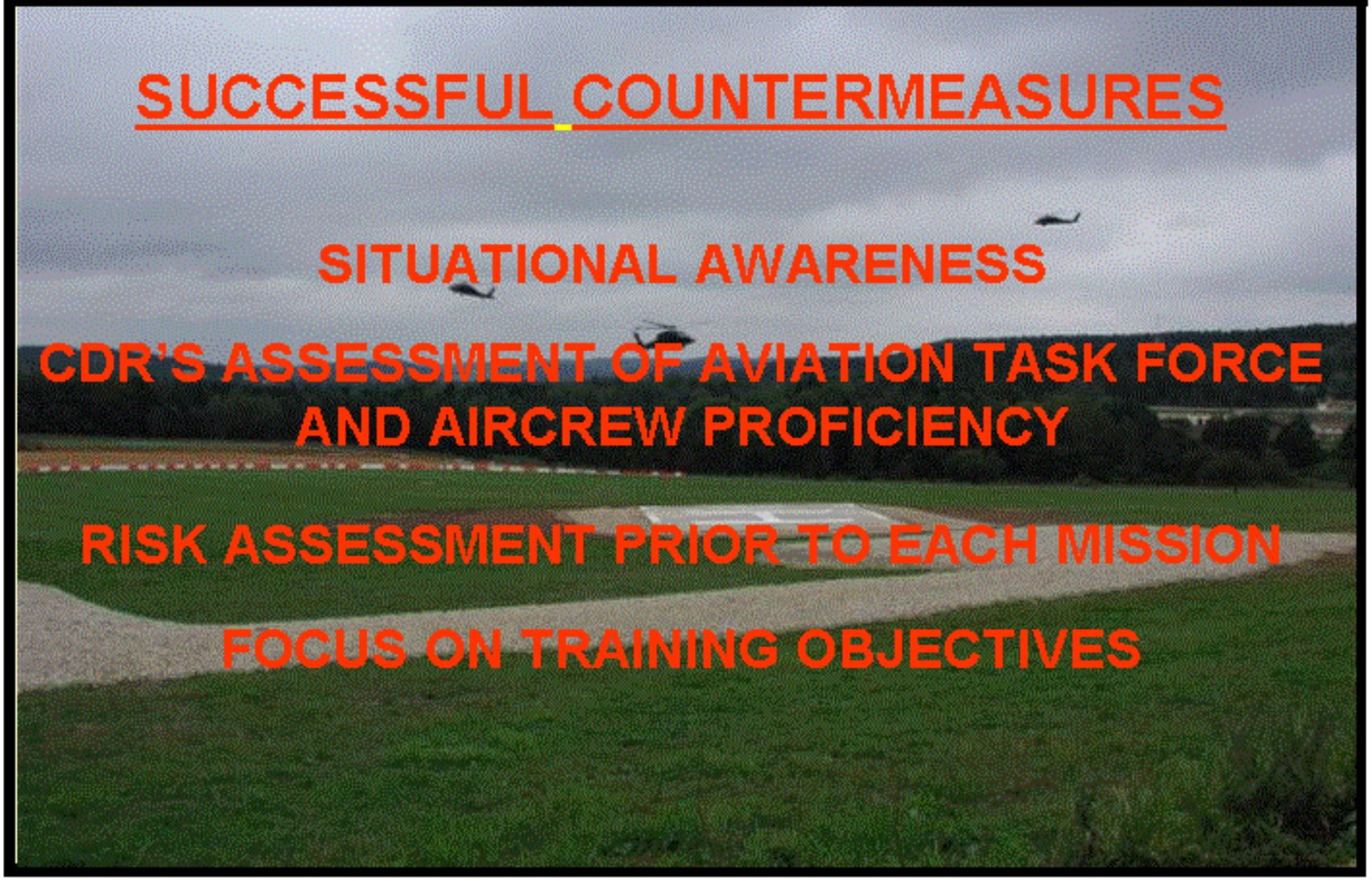
FY 02 to Date
ALL AVIATION ACCIDENTS REPORTED

1-BROWNOUT
2-LOSS OF POWER
3-LOSS OF CONTROL
4-MAINTENANCE
5-ENVIRONMENTAL
6-HUMAN ERROR
7-FALL FROM AIRCRAFT
8-UNKNOWN

Aviation Accidents (Afghanistan)
By Aircraft Type



Mishap Prevention



Historical Considerations

OPERATIONAL CHALLENGES

CMTC EXPERIENCE

DECONFLICTION OF BLUFOR/OPFOR/OC/UAV AIRCRAFT IN A COMPRESSED TRAINING AREA

FARP OPERATIONS 40S, STOL & OP19

Historical Considerations

OPERATIONAL CHALLENGES

PLANNING

NVD FORMATION PROFICIENCY VS. CURRENCY

MOUNTAIN FLYING

RISK ASSESSMENT
(PRIOR TO EVERY MISSION)

Mission/Task:	Page	Mission Date:	Date Prepared:
Environmental Training	1 of 1	*021500FEB00*	*28 Jan 00*

Prepared by: *Maj* Operations, *S-3*

Risk Management Worksheet
Your unit name

HAZARDS	INITIAL RISK	CONTROLS	RESIDUAL RISK	IMPLEMENT	SUPERVISE
Dust/Brownout Conditions	H	- Dry/Rehearsals - Hazards posted in Flt Ops - Hazards briefed - Specified Crews - Orientation Flights - Crew coordination	M	- OPORD - Hazards Map - Mission Brief - Train-up	- CDR's - S-3 - Flt Ops OIC - SIP - SIP - ASO

1 What is the Hazard?

2 Initial Risk Assessment

3 Actions that reduce the risk

4 Residual Risk

5 How to Implement the Control Measures

6 Who makes sure the Controls Are used

Highest Residual Risk

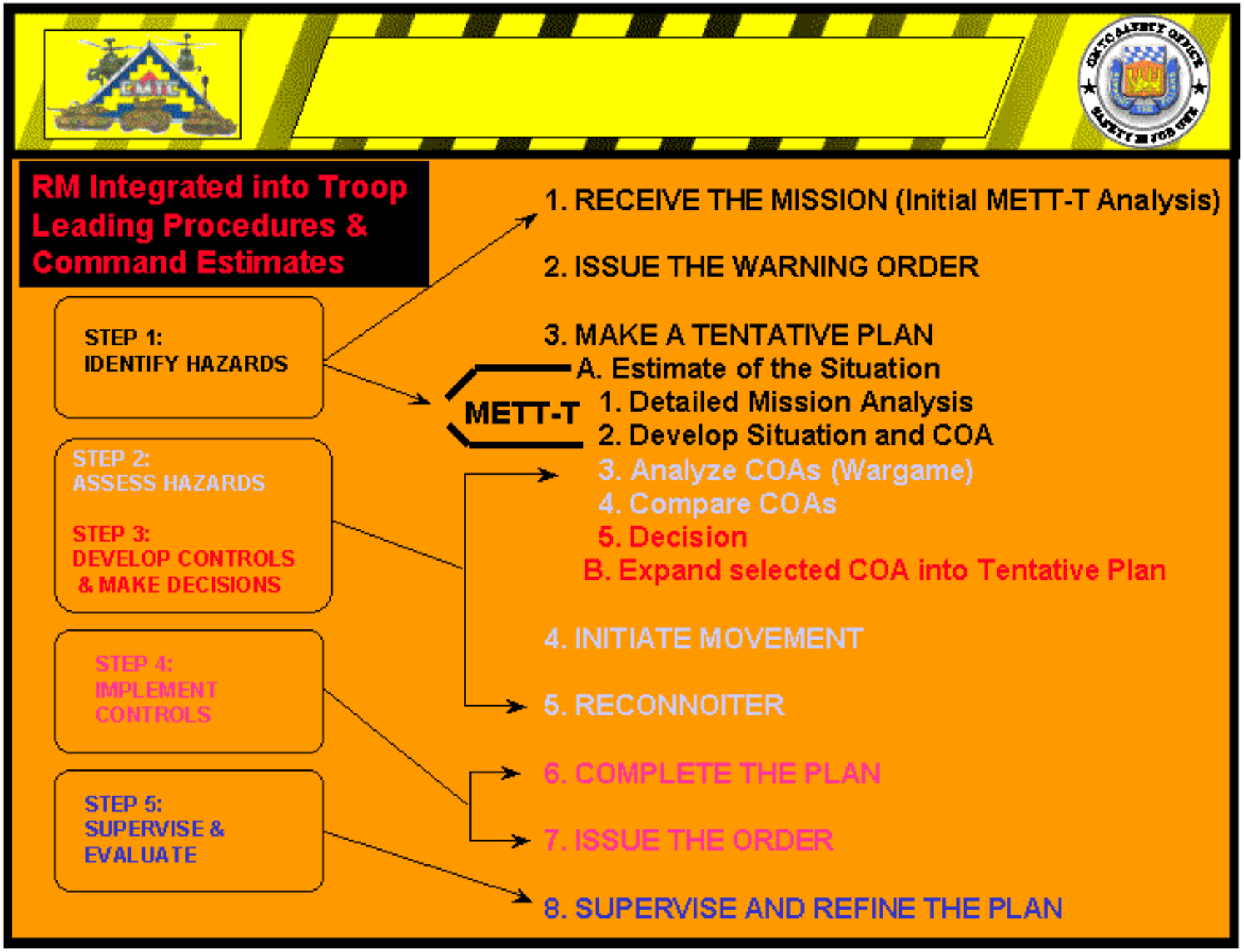
Risk Acceptor

Overall Risk Level After Controls are Implemented (Circle One) 7

LOW *MODERATE* *HIGH* *EXTREMELY HIGH*

Risk Decision Approved by: 8

I. M. Golden, Jr, LTC, AV Commanding


RM Integrated into Troop Leading Procedures & Command Estimates
STEP 1: IDENTIFY HAZARDS
STEP 2: ASSESS HAZARDS
STEP 3: DEVELOP CONTROLS & MAKE DECISIONS
STEP 4: IMPLEMENT CONTROLS
STEP 5: SUPERVISE & EVALUATE
1. RECEIVE THE MISSION (Initial METT-T Analysis)
2. ISSUE THE WARNING ORDER
3. MAKE A TENTATIVE PLAN
A. Estimate of the Situation
METT-T
1. Detailed Mission Analysis
2. Develop Situation and COA
3. Analyze COAs (Wargame)
4. Compare COAs
5. Decision
B. Expand selected COA into Tentative Plan
4. INITIATE MOVEMENT
5. RECONNOITER
6. COMPLETE THE PLAN
7. ISSUE THE ORDER
8. SUPERVISE AND REFINE THE PLAN

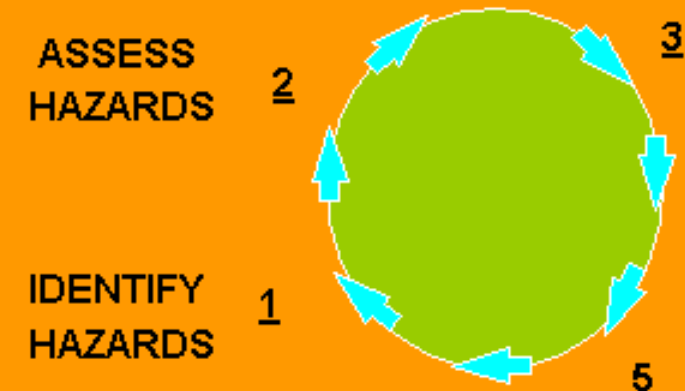
RM and Decision Making

Risk Management Integrated into the Military Decision-Making Process

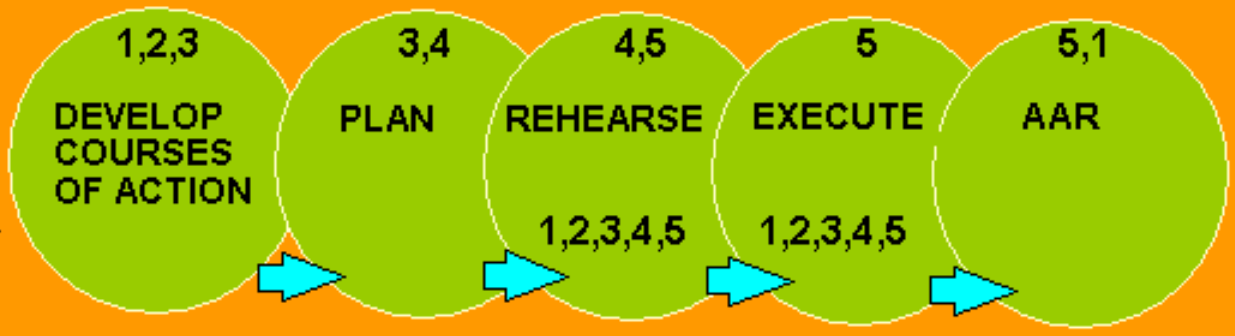
Military Decision-Making Process	Risk Management Steps				
	Step 1 Identify Hazards	Step 2 Assess Hazards	Step 3 Develop Controls and Make Risk Decisions	Step 4 Implement Controls	Step 5 Supervise and Evaluate
Mission Receipt	X				
Mission Analysis	X	X			
COA Development	X	X	X		
COA Analysis	X	X	X		
COA Comparison			X		
COA Approval			X		
Orders Production				X	
Rehearsal (1)	X	X	X	X	X
Execution and Assessment (1)	X	X	X	X	X

(1) All boxes are marked to emphasize the continued use of the risk management process throughout the mission

RM Integrated Into Operations & Training Cycle



MISSION
- TASK
- PERSONNEL
- MATERIEL
- ENVIRONMENT



OPERATION AND TRAINING CYCLE


Leadership
Discipline
Standards

ALL ACCIDENTS ARE PREVENTABLE